US Army Corps of Engineers Great Lakes Navigation Business Line FY19 Final Allocation – With Workplan Additions Revised December 2018

Navigation O&M \$109.7M + \$83.2M = \$192.9M

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$46.38M
            Primary Dredging 3.4M cu yds ($38.03M + $8.35M / 2.81M cu yds + 0.5M cu yds)
            $1.30M
                        Ashtabula Harbor
                        Burns Harbor
            $1.49M
            $2.50M
                        Calumet Harbor and River
            $5.75M
                        Cleveland Harbor ($4.60M + $1.15M)
            $1.13M
                        Conneaut Harbor
            $3.00M
                        Detroit River ($2.00M+ $1.00M)
            $3.00M
                        Duluth-Superior
            $1.15M
                        Fairport Harbor
            $1.50M
                        Grand Haven
            $3.50M
                        Green Bay Harbor
            $0.60M
                        Holland Harbor
            $3.77M
                        Indiana Harbor
             $0.50M
                        Ludington Harbor
            $0.50M
                        Milwaukee Harbor
            $1.20M
                        Rochester Harbor
            $1.30M
                        Sandusky Harbor
            $2.30M
                        St. Clair River ($0.80M + $1.50M)
            $1.50M
                        St. Joseph Harbor
            $3.78M
                       Toledo Harbor
            $1.53M
                        Waukegan
            $0.90M
                        Manitowoc Harbor
            $0.90M
                        Sturgeon Bay Harbor and Lake Mich Ship Canal
            $0.70M
                        Kewaunee Harbor
            $1.35M
                        Buffalo Harbor
            $0.85M
                        Oswego Harbor
$9.98M
            Project Condition Surveys
$19.84M
            Lock Operation & Maintenance ($19.79M + $0.05M)
            $1.91M
                        Black Rock Lock
            $3.08M
                        Chicago Lock
            $14.8M
                        Soo Locks
            $0.05M
                        Inland Route
$13.22M
            Floating Plant Repair Fleet (Ashtabula, Buffalo, Burns, Calumet, Cleveland, Duluth-Superior,
            Indiana, Milwaukee)
$6.57M
            Strike Removal (Detroit River, St. Clair, St. Marys River)
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S14.89M Dredged Material Management S4.81M CDF Operations (Cleveland, Indiana, Saginaw, Toledo) S5.24M CDF Maintenance (Detroit, Buffalo + \$1.50M, Indiana, Saginaw) S0.62M CDF Fill Management (Calumet) S2.08M DMMP (Buffalo, Calumet + \$0.6M, Cleveland, Huron, Erie, Toledo) (\$0.78M + \$1.3M) S0.425M Dike Raising E&D (Indiana) S0.015M CDF ERGO (Buffalo, Huron, Lorain) S0.01M Federal Standard Determination (Dunkirk) S1.69M Sediment Sampling & Analysis, Modeling, and Compliance (Buffalo) S51.34M Structure Design, Maintenance, Repairs S1.71M Engineering & Design Repairs (Grand Haven, Frankfort, Keweenaw Waterway, Manistee, Manistique, Kenosha, Kewaunee, Cleveland) S0.50M Chicago Lock – North Pier Utilities Relocation S0.70M Structure Maintenance (Hammond Bay, Lexington) S3.00M Muskegon Harbor S11.00M Duluth-Superior Harbor S5.525M Sheboygan Harbor S5.00M Oswego Harbor S5.00M Oswego Harbor S5.00M Oswego Harbor S5.00M Oswego Harbor S5.00M Duffalo Harbor S6.62M Chicago Harbor S6.62M Chicago Harbor S6.62M Chicago Harbor S6.50M Regional Economic Data Collection (Cleveland) S0.25M Regional Economic Data Collection (Cleveland) \$0.25M Breakwater Assessment Team (Duluth) S17.44M Soo Locks Maintenance, Repairs S2.00M Poe Lock Gate 1 Repairs – Phase 1 S0.40M Gov't Plant Support to Soo Winter Lock Closure S5.50M Crane/Flotation (Heavy Lift) S5.80M Steam Plant S0.20M E&D Poe Gate 4 S0.375M E&D Mac Ship Arrestors S0.50M E&D Center Dike S0.365M Waterway Safety Signs S1.30M FY19 Winter Work Equipment & Materials S4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) S2.60M Lower Gate Diagonal Replacement S0.55M Motor Control and Miter Gate Design				
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\$5.00M Oswego Harbor \$9.60M Buffalo Harbor \$2.929M Lorain Harbor \$6.62M Chicago Harbor \$0.25M Regional Economic Data Collection (Cleveland) \$0.25M Breakwater Assessment Team (Duluth) \$17.44M Soo Locks Maintenance, Repairs \$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$5.525M	Sheboygan Harbor	
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\$2.929M Lorain Harbor \$6.62M Chicago Harbor \$0.25M Regional Economic Data Collection (Cleveland) \$0.25M Breakwater Assessment Team (Duluth) \$17.44M Soo Locks Maintenance, Repairs \$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$5.00M	Oswego Harbor	
\$0.25M Regional Economic Data Collection (Cleveland) \$0.25M Breakwater Assessment Team (Duluth) \$17.44M Soo Locks Maintenance, Repairs \$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$9.60M	Buffalo Harbor	
\$0.25M Regional Economic Data Collection (Cleveland) \$0.25M Breakwater Assessment Team (Duluth) \$17.44M Soo Locks Maintenance, Repairs \$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$2.929M	Lorain Harbor	
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\$17.44M Soo Locks Maintenance, Repairs \$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement	\$0.25M	Regional Economic Data Collection (Cleveland)		
\$2.00M Poe Lock Gate 1 Repairs – Phase 1 \$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement	\$0.25M	Breakwater Assessment Team (Duluth)		
\$0.40M Gov't Plant Support to Soo Winter Lock Closure \$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement	\$17.44M	Soo Locks Maintenance, Repairs		
\$6.50M Crane/Flotation (Heavy Lift) \$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$2.00M	Poe Lock Gate 1 Repairs – Phase 1	
\$5.80M Steam Plant \$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$0.40M	Gov't Plant Support to Soo Winter Lock Closure	
\$0.20M E&D Poe Gate 4 \$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$6.50M	Crane/Flotation (Heavy Lift)	
\$0.375M E&D Mac Ship Arrestors \$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$5.80M	Steam Plant	
\$0.50M E&D Center Dike \$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$0.20M	E&D Poe Gate 4	
\$0.365M Waterway Safety Signs \$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$0.375M	E&D Mac Ship Arrestors	
\$1.30M FY19 Winter Work Equipment & Materials \$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$0.50M	E&D Center Dike	
\$4.8M Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M) \$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$0.365M	Waterway Safety Signs	
\$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement		\$1.30M	FY19 Winter Work Equipment & Materials	
\$2.60M Lower Gate Diagonal Replacement \$1.65M Pintle Replacement	\$4.8M	Black Rock Lock Maintenance/Repairs (\$4.25M + \$0.55M)		
\$1.65M Pintle Replacement				
\$0.55M Motor Control and Miter Gate Design		\$1.65M	•	
		\$0.55M	Motor Control and Miter Gate Design	

US Army Corps of Engineers Great Lakes Navigation Business Line FY19 Final Allocation – With Workplan Additions Revised December 2018

\$4.58M	Chicago Lock Maintenance/Repairs \$1.82M		
\$0.92M	Lake Michigan Diversion Accounting (\$0.85M + \$0.074M)		
\$0.20M	Utility Investigation (Saginaw River)		
\$0.54M	Sediment Sampling Analysis (Barcelona, Erie, Huron, Ogdensburg, Oswego, St Marys)		
\$0.02M	Local O&M Reimbursement (Sturgeon Point Harbor)		
\$2.1M	St. Marys River Grounds and Security (Nav Business Line portion)		

Navigation Construction General \$33.49M

\$1.10M Calumet Harbor & River – Design of DMDF

\$32.388M New Soo Lock – Upstream Channel Deepening Design & Partial Construction